

Title (en)  
PIEZOELECTRIC PORCELAIN COMPOSITION

Title (de)  
PIEZOELEKTRISCHE KERAMIKZUSAMMENSETZUNG

Title (fr)  
COMPOSITION DE PORCELAINE PIÉZOÉLECTRIQUE

Publication  
**EP 2218701 A4 20130313 (EN)**

Application  
**EP 08856668 A 20081106**

Priority  
• JP 2008070185 W 20081106  
• JP 2007315730 A 20071206

Abstract (en)  
[origin: EP2218701A1] A  $\text{KNbO}_3$ - $\text{NaNbO}_3$  piezoelectric porcelain composition which exhibits a larger piezoelectric constant than those of conventional ones and does not have any secondary phase transition point in the neighborhood of room temperature (10 to 40°C), that is, a piezoelectric porcelain composition represented by the general formula:  $(1-y-z-w)(\text{K} \times \text{Na}^{1-x})\text{NbO}_3 + y\text{LiNbO}_3 + z\text{SrTiO}_3 + w\text{BiFeO}_3$ , wherein  $(\text{K} \times \text{Na}^{1-x})\text{NbO}_3$  represents potassium sodium niobate;  $\text{LiNbO}_3$  represents lithium niobate;  $\text{SrTiO}_3$  represents strontium titanate; and  $\text{BiFeO}_3$  represents bismuth ferrate; with the proviso that  $0.4 < x < 0.6$ ,  $0 < y \leq 0.1$ ,  $0 < z < 0.1$ ,  $0 < w < 0.09$ , and  $0.03 < y + z + w \leq 0.12$ .

IPC 8 full level  
**C04B 35/495** (2006.01); **H01L 41/187** (2006.01); **H01L 41/257** (2013.01); **H01L 41/39** (2013.01)

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• See references of WO 2009072369A1

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